

## Sleep and Schedule Regulation Education for Concussion

*(Adapted from the Ontario Neurotrauma Foundation's Guidelines for Concussion/Mild Traumatic Brain Injury & Persistent Symptoms, 3<sup>rd</sup> ed.)*

Patient Name: \_\_\_\_\_

Date: \_\_\_\_\_

In many who suffer from persistent concussion-related symptoms, sleep disturbance is a frustrating component of the injury. Sleep disturbance after a concussion may include difficulty falling asleep, early awakening, irregular sleep-wake pattern, and/or daytime fatigue and sleepiness. Sleep disturbance can further aggravate symptoms of headache, cognitive fatigue, and difficulty concentrating to name a few.

The following are helpful tips to improve sleep pattern and quality. Please speak to your medical physician if you have any questions pertaining to medications or other medical conditions you are experiencing that may be contributing to sleep disturbance.

### Sleep and Schedule Regulation

*\*It is normal to feel sleepy or tired in the first days/weeks when following these recommendations\**

#### Sleep and Wake Schedule

1. Set a **fixed bedtime** (same bedtime everyday, even on weekends)
2. Set a **fixed wake time** (even on weekends, and regardless of the amount of sleep obtained)
3. **Limit the amount of time spent awake while in bed** (e.g. if you sleep less than 85% of the time you spend in bed, decrease time spent in bed by 15-20 mins by either adjusting your bedtime or your wake time. Or, if you sleep more than 85% of the time you spend in bed and/or you constantly feel sleepy during the day, increase your sleep time by 15-20 mins by adjusting your bedtime or wake time).
4. **Allow at least 1 hour before bedtime to unwind.** Plan activities in this time that are quiet, relaxing, and help you "wind down" (eg. warm bath, listen to music (soft), audio book). Does not include stimulating activity such as computer work, studying, tablet/phone, etc.

5. **Avoid daytime napping.** After the first few days post-injury, napping can impair sleep quality and quantity at night, contributing to ongoing symptoms and sleep dysfunction. If napping is unavoidable, keep your nap under 30 minutes (1 per day) and before 3pm.

### Sleep Environment

1. **Bedroom should be dark,** cool, comfortable, and quiet (no sources of light/artificial noise in bedroom while sleeping. E.g. TV, bright alarm clock)
2. **Electronics should be turned off** or in “sleep mode” (cell phones, tablets, computers). Ideally, avoid these activities in the bedroom altogether.
3. **Avoid using a bright digital alarm clock** where possible (cell phone alarm preferable – sleep mode)

### Nutrition & Exercise

1. **Avoid caffeine** within 4-6 hours of bedtime
2. **Avoid alcohol** within 4 hours of bed time (ideally, avoid altogether)
3. **Avoid sugary foods** (altogether is ideal) – but at least within 4 hours of bed time
4. **Avoid heavy meals** late in the evening
5. **Exercise** daily (not within 2 hours of bedtime) – even a short, 20-30 minute walk to start. Gradually increase duration and intensity as permitted by your healthcare provider.  
**\*\*Speak to your healthcare provider before starting an exercise program if you have sustained a concussion\*\***
6. Expose yourself to **natural light** during the day (e.g. sun through windows of house, go for a walk outside during the day)
7. **Regular meals** (same time each day, fixed routine)
  - a. Breakfast high in protein (within 1 hour of waking)
  - b. Lunch/snack
  - c. Dinner (same time each day)
  - d. Bedtime snack OK but high in protein is ideal
8. Keep yourself **well hydrated** (4-6 glasses of water daily) – avoid soft drinks

Additional Comments/Recommendations: